

## *Module 5, Lesson 5 Handout:*

### **Stress & Fatigue**

Stress and fatigue are prevalent, sometimes misunderstood and extremely influential on health and happiness. Here's a review of key points and tips to share and discuss with your clients for reducing stress and fatigue.

#### **Statistics on Stress and Fatigue**

According to The American Psychological Association, 75% of Americans experience at least one symptom of stress each month. One-third of adults report feeling nervousness, anxiety, irritability, anger or fatigue due to stress. Sources of stress include health care, taxes, the economy, government, divorce, finances and death. Reports from the CDC find 40% of people view their jobs as very or extremely stressful. Women generally report a higher level of stress than men. Chronic fatigue syndrome affects 0.4% of the population. It's estimated that between 836,000 and 2.5 million individuals are affected in the United States by chronic fatigue.

#### **What is Stress?**

Stress is defined as “the generalized, nonspecific response of the body to any factor that overwhelms or threatens to overwhelm the body’s compensatory abilities to maintain homeostasis.” Acute stress is usually in reaction to an event that brings a sense of danger or urgency. Chronic stress is the long term stress from things like work, busy schedules, money or other burdens to daily life.

#### **The Stress Response and Impact on Health**

The amygdala (part of the brain involved in emotional processing) sends a distress signal to the hypothalamus, which is the command center that communicates with the rest of the body. The hypothalamus activates the sympathetic adrenal medullary system, which signals the adrenal glands to release adrenaline (also known as epinephrine), a hormone/neurotransmitter. This is the fight-or-flight response, getting you ready to take action against the stressful situation by increasing blood pressure, raising heart rate, helping blood flow to essential organs and releasing glucose and fats from storage for energy. It's like pressing down on the gas pedal.

After the initial surge of adrenaline, the hypothalamus activates the HPA axis (comprising the paraventricular nucleus of the hypothalamus, the anterior lobe of the pituitary gland, and the adrenal

gland). The HPA axis response uses hormonal signals to keep the sympathetic nervous system in action. The hypothalamus releases corticotropin-releasing hormone (CRH), which stimulates the anterior lobe of the pituitary gland to secrete adrenocorticotrophic hormone (ACTH), which then stimulates the adrenal glands to secrete cortisol. This cascade keeps the body on high alert. Once the event is over, cortisol levels drop and the parasympathetic nervous system acts as the brakes to stop the stress response. When working properly, the acute stress response is very useful.

The difference between acute and chronic stress is that with chronic stress, we never activate our “brakes,” the parasympathetic nervous system. Chronic low-level stress keeps the HPA axis activated; it’s like a car engine sitting in idle, or like having tons of apps and programs open in the background on your phone or computer. Eventually, this leads to health issues. Chronic stress has been linked to weight gain, hypertension, skin disorders, inflammation, changes to gut microbiota and decreased life expectancy.

## What is Fatigue?

Fatigue describes an overall, prolonged feeling of tiredness. It’s not the same as feeling sleepy; it’s an ongoing total lack of energy. Acute fatigue can be brought on by short term sleep loss or periods of heavy mental or physical work. It can usually be reversed by sleep and relaxation. Chronic fatigue, known as chronic fatigue syndrome or myalgic encephalomyelitis, is a constant state of tiredness that doesn’t go away with sleep or rest. Chronic fatigue can’t be explained by an underlying medical, hormonal, metabolic, or inflammatory condition. It isn’t well understood. Self-reported symptoms include impairments in concentration and short-term memory, sleep disturbances, muscle and/or joint pain, sore throat, headaches, unrefreshing sleep, post-exertional and GI discomfort. We’ll discuss the idea of adrenal fatigue in another handout.

## Strategies to Reduce Stress and Combat Fatigue

This is a general list, lumping together stress and fatigue because everyone has different symptoms and ways these conditions present. Not everything here will be appropriate for everyone. For example, exercise is great for stress but may be harmful for people with fatigue. Another example is supplementation. While herbs or other supplements may be beneficial for some people, they may be harmful for others. There is no one treatment that is guaranteed for everyone, so work with the individual to come up with a plan that will work for that specific person. Here are a ways to help a client get started:

- Including meditation
- Listening to music

- Doing yoga and/or tai chi
- Getting massages
- Checking email less
  
- Working out (but not over doing work)
- Getting organized
- Creating daily “me time”
- Spending time with loved ones
- Getting sleep (while sleep won’t cure chronic fatigue, it’s necessary to help your body fully rejuvenate. The hours one sleeps before midnight are more beneficial than the hours after midnight so help your clients set a bedtime routine to get to bed earlier)
- Adding adaptogenic herbs (maca, rhodiola, and ashwagandha have been used for centuries to combat stress and fatigue)
- Getting acupuncture
- Considering nutrient deficiencies and supplementation
  - Magnesium
  - Iron
  - Vitamin B12
- Limiting caffeine and alcohol
- Eating a balanced diet healthy diet incorporating all key nutrients